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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,624	10/22/2001	Matthew Round	1487.0240000/DKSC/JDS	9694

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EXAMINER

BURNHAM, SARAH C

ART UNIT	PAPER NUMBER
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3636

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/807,624	ROUND ET AL.	
	Examiner	Art Unit	
	Sarah C. Burnham	3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-31, 33, 34 and 36-64 is/are pending in the application.
- 4a) Of the above claim(s) 11-28, 51 and 52 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-64 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10, 29-31, 33, 34 and 36-38 is/are rejected.
- 7) ☒ Claim(s) 39-50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7, 10, 34 and 36-38 are rejected under 35 U.S.C. 103(a) as being anticipated by Legrand (EP 0 036 822 A1) in view of Park (US2001/0000639). In Figure 1, Legrand discloses a seating unit (2) comprising a pair of seats (3)(4) facing in opposite directions. Each of seats (3)(4) has a seating space (5)(6) and an extension space (12)(11). Seats (3)(4) are positioned either side of a longitudinal axis (18) where the seating space (5) of seat (3) extends over the longitudinal axis (18) towards the extension space (11) of seat (4) and the seating space (6) of seat (4) extends over the longitudinal axis (18) toward extension space (12) of seat (3). The seating spaces (5)(6) are larger than extensions spaces (12)(11). Each seat (3)(4) has a seat axis (unlabeled) represented by a dashed line that is substantially parallel to longitudinal axis (18).

Each of seats (3)(4) has an armrest (20) arranged along a common axis (unlabeled) defined by wall (17). Common axis (unlabeled) is substantially coincident with longitudinal axis (18).

Seats (3)(4) are contained within housings (unlabeled) consisting of walls (51)(52)(53)(54)(55)(56)(57)(58). Wall (17) is substantially coincident, yet slightly offset, from longitudinal axis (18).

Figure 11 shows how seats (3)(4) each comprise a back portion (102) and a seating portion (unlabeled), bordered by hinges (104) and the angular bend (unlabeled). The phantom and solid lines in Figure 11 show how the seating portion (unlabeled), bordered by hinge (104) and angular bend (unlabeled) is moveable to allow for the recline of back portion (102).

A secondary unit (unlabeled) bordered by angular bend (unlabeled) and hinge (105) in Figure 11 faces back portion (102) of seats (3)(4) and is positioned within the extension spaces (12)(11).

The seating unit (2) disclosed by Legrand is for use in rail, road, air and sea public transit vehicles.

The seating unit (2) has a back portion (102) and a seating portion (unlabeled) which are moveable together to a plurality of different positions lying between the solid and the phantom lines shown in Figure 11. In the solid line depiction, the seating portion is inclined to the floor of the cabin at a more extreme angle than the phantom line depiction. The phantom line depiction in Figure 11 is considered fully upright position while the solid line depiction is considered the take off position lessening the effect of the take-off angle on the seat occupant. Elements (112)(113) function as a locking mechanism locking the seat in various positions.

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The seating unit includes one seat facing in one direction and a second seat facing in an opposite direction

LeGrand reveals all claimed elements with the exception of a back portion and seating portion moveable to a fully reclined position in which said seating portion and said back portion form a flat surface and a secondary unit spaced apart from said seat.

Park teaches the use of a seat with a back (22) and a seat (20) that are moveable to a fully reclined flat position as disclosed in Figure 3, and a secondary unit (304) that is spaced apart from the seating unit as seen in Figure 20 a.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify the seat reclining mechanism (103)(104)(105)(106)(107) disclosed by LeGrand to allow for positioning of the seating unit to a fully flat position. Such a modification would help improve the comfort of the seat occupant by providing a seat that can be converted into a bed with compromising comfort (paragraph [0061]). Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to space the secondary unit (unlabeled) disclosed by LeGrand apart from the seating unit as taught by Park. Again, such modification allows for further adjustability of the seat and additional comfort for the user.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Legrand (EP 0 036 822 A1) in view of Park (US2001/0000639), as applied to claim 1 above, and in further view of Cozzoli (2,480,322). As stated above, Legrand discloses all claimed

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elements without explicitly showing how seating unit (2) can be arranged such that each seat (3)(4) is facing substantially forward or aft.

Cozzoli teaches an arrangement of stretchers (18) within an aircraft (5) in which each stretcher is positioned to face either forward or aft.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to arrange seating unit (2) such that seats (3)(4) are aligned to face either forward or aft as taught by Cozzoli. Such an arrangement is beneficial in that when the aircraft quickly accelerates or decelerates, the seat occupant is not thrown sideways out of their seat.

4. Claims 8, 29, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Legrand (EP 0 036 822 A1) in view of Park (US2001/0000639), as applied to claims 1 and 7 above, and in further view of Park (WO 98/36967). As stated above, Legrand, as modified, discloses all claimed elements with the exception of: (1) a seating portion movable to a fully extended position to allow the back portion to recline to a fully reclined position so that together the secondary unit, the seating portion and the back portion form a flat surface and (2) an in-flight entertainment unit comprising a housing, monitor, support arm, cocktail table, computer power point, audio output jack, condition indicator all mounted in a housing associated with another seat.

Park discloses an aircraft seat having a back portion (310), a seating portion (312) and a secondary unit (313) that can be extended to a fully flat position as shown in Figures 15a and 15b. It would have been obvious to one of ordinary skill in the art at

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the time of the instant invention to modify the size of back portion (102), seat portion (unlabeled) and secondary unit (unlabeled) in order to allow them to extend to a flat position as taught by Park. Such a modification would provide more headroom for seat occupants located at a tier below and also more comfort for sleeping.

Park further discloses an in-flight entertainment unit comprising a housing (226) with a monitor (238) which is pivotally mounted in order to be moved from a stored position to a viewing position (page 36, lines 9-20) and is mounted within a housing (226) associated with another seat, as seen in Figure 12b. Furthermore, Park teaches the use of a cocktail table (232) which is foldable between a "stowed position in the console and a deployed position outside the console" (page 43, line 25). The entertainment unit is mounted in a housing (226) which lies between two seats as seen in Figure 12b, and is therefore associated with two seats.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to add the entertainment unit taught by Parks between the seats (3)(4) of seating unit (2) disclosed by Legrand. Such an addition would further enhance the riding comfort of the seat occupant.

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeGrand (EP 0 036 822 A1) in view of Park (US2001/0000639) and in further view of Park (WO 98/36967) as applied to claim 29 above, and still further in view of May et al. (6,102,476). Legrand, as modified, reveals all claimed elements with the exception of a computer power point, an audio output jack and a condition indicator.

May et al. teaches the use of a computer power point (20), speakers (40) which are inherently connected to an audio output jack, and a condition indicator (45).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to incorporate the computer power point (20), speakers (40) and condition indicator (45) into the entertainment unit disclosed by Legrand, as modified. Incorporation of such elements would make the seating arrangement more conducive for business travelers, one of the primary customers of airlines these days.

Allowable Subject Matter

6. Claims 39-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 53-64 are allowed.

Response to Amendment/Arguments

8. The amendment filed on June 13, 2005 has been considered in its entirety. Remaining issues are detailed in the section above.

Applicant argues that one of ordinary skill in the art would not be motivated to consider the teaching of LeGrand or Bergenwall when considering aircraft seating. The Examiner contends that the teaching of LeGrand would indeed be applicable to those constructing aircraft seating units. LeGrand discloses a seating system for use in a

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large transportation vehicle such as a train. Trains and planes have several similarities including carrying high volumes of passengers at high speeds in elongate shaped vehicles. Therefore, the Examiner maintains that seats used in trains do indeed having applicable teachings when contemplating aircraft seating.

Furthermore, Applicant argues that moving the seating structure disclosed by LeGrand to a fully upright position would destroy the space saving advantage of the seating unit. The Examiner would like to point out that LeGrand already discloses an upright position in Figure 11. This is considered upright given that the seat occupant's buttocks would be located below their head. Park is currently relied upon for his teaching of a fully reclined flat position. Therefore, adjusting the seat pivoting structure to allow for a fully reclined flat position would not diminish the space between the stacked seating units. Such a modification would entail merely lengthening the stroke of the compression spring unit shown in Figures 11-13 of LeGrand. To summarize, LeGrand already discloses an upright seating position. The only missing limitation is the ability of the seat to assume a fully flat position. Park is relied upon for his teaching of a fully flat reclined position in an aircraft seat.

Applicant further argues that Figure 11 does not disclose an upright position and a take-off position. The Examiner maintains that since the seat occupant's buttocks would be positioned at a level below their head, this position is considered upright. Furthermore, the phantom lines depict a backrest moving to a further upright position, which would be applicable for take off situations. Applicant argues that these positions

do not meet the configuration requirements set forth by the NTSB. However, meeting those requirements is not a limitation set forth by the claim.

Finally, Applicant argues that the seat axes are not substantially parallel to the axis of the seating unit. Again, the Examiner maintains that the word substantial is broad and a subject of considerable interpretation and the Examiner maintains that axes are substantially parallel given that the angle between them is small.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah C. Burnham whose telephone number is 571-272-6854. The examiner can normally be reached on M-Th 7:30 am - 5:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 20, 2005


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